



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,940	01/29/2004	Hiroshi Harada	0425-1109P	1821

2292 7590 03/14/2007
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

KNOX, STEWART

ART UNIT	PAPER NUMBER
----------	--------------

3641

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/14/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.		Applicant(s)	
	10/765,940		HARADA ET AL.	
	Examiner		Art Unit	
	Stewart T. Knox		3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 8-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-3 and 5-7 in the reply filed on 7/7/2006 is acknowledged.

Specification

2. The Amendments to the Specification and Abstract have been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 7 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 7 was amendment so that, among other things, "S-shaped" was changed to "S-shaper." It appears that this was in error, since it is unclear what "S-shaper" means. Appropriate clarification is required.
6. Claim 15 recites the limitation "the plane" in line 1. There is insufficient antecedent basis for this limitation in the claim, since no plane has been previously recited.

Claim Rejections - 35 USC § 103

7. Claims 1-3, 5-7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duguet in view of Narumi (6,354,217) or Lubbers (6,446,557). Duguet discloses parts of an igniter including a header (10), a heat generating body (generally element 18, including elements 17, 25, 28, 29, see figure 2) and plural electroconductive pins (12, 13), wherein the electroconductive pin penetrates from the one surface of the header to the other, and the heat generating body is sandwiched between one end portion of the electroconductive pin and the header surface (see figure 1).

8. Duguet further discloses that the heat generating body is in contact with the pins (in channels 22 and 23) and a heat generating portion that generates heat due to an electric current (resistive element 17 and 18) formed on a substrate, wherein the heat generating portion is S-shaped. In regards to claim 15, a plane is formed at one end of the conductive pins by the header

9. It is noted that the limitations “printed substrate” and “formed by etching” are product-by-process limitations. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps; “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 227 USPQ 964. Therefore the printed substrate and formed by etching limitations are not pertinent in this instance to the patentability of this product claim.

10. Duguet does not disclose a pin with a flange/flat portion. Narumi teaches one end portion (23) of the electroconductive pin (12) that has a flat surface sandwiching the heat generating body (20, 21, 22) between itself and the header (20'). Element 23 is considered a flange portion since it forms a flange in combination with its attachment to the electroconductive pins. The flange/flat portion is provided in order to retain the electroconductive pin in the header (col. 3 lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electroconductive pin of Duguet to include a flat portion or flange as taught by Narumi, since such a modification would provide the pin with additional means to remain secured in the header against excessive vibration or other disturbances.

Response to Arguments

11. Applicant noted that the previous Office Action sent on 9/21/2006 incorrectly indicated the claims in consideration, with respect to which claims were pending but not withdrawn. The Examiner regrets this oversight and has corrected it in the current action.

12. Applicant's arguments filed 12/21/2006 have been fully considered but they are not persuasive. While Applicant is correct that Duguet *by itself* does not teach flanges on the electroconductive pins, Duguet was never relied upon for such a teaching. In the previous Office Action, Narumi was cited as providing the teaching of a flange portion. Applicant has provided no arguments for why element 23 in Narumi should not be considered a flange, and as such this rejection has apparently not been traversed by Applicant and is made final.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stewart T. Knox whose telephone number is (571) 272-8235. The examiner can normally be reached on Monday through Thursday, 8:00 AM to 6:30 PM.

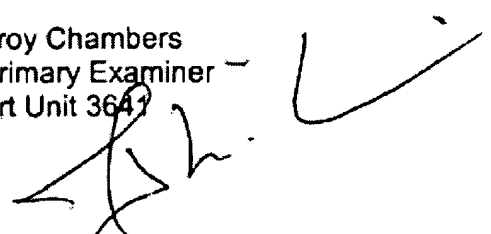
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stewart Knox

Troy Chambers
Primary Examiner
Art Unit 3641



03/08/2007